Experiment 6: FTP

AIM:

To create and configure FTP Server

DESCRIPTION:

File Transfer Protocol (FTP) is a TCP protocol for downloading files between computers. In the past, it has also been used for uploading but, as that method does not use encryption, user credentials as well as data transferred in the clear and are easily intercepted. So if you are here looking for a way to upload and download files securely,
FTP works on a client/server model. The server component is called an *FTP daemon*.
It continuously listens for FTP requests from remote clients. When a request is received, it manages the login and sets up the connection. For the duration of the session it executes any of commands sent by the FTP client

Port No: 21
Package name: vsftpd
Configuration file: /etc/vsftpd.conf

PROCEDURE:

1. Install the vsftpd - FTP Server Installation in the ubuntu operating system
   $sudo apt install vsftpd
2. By default vsftpd is *not* configured to allow anonymous download. If you wish to enable anonymous download edit /etc/vsftpd.conf by changing:
   $anonymous_enable=YES
3. During installation a *ftp* user is created with a home directory of /srv/ftp. This is the default FTP directory.
If you wish to change this location, to /srv/files/ftp for example, simply create a directory in another location and change the *ftp* user's home directory:
   $sudo mkdir -p /srv/files/ftp
   $sudo usermod -d /srv/files/ftp ftp
4. After making the change restart vsftpd:
   $ sudo service vsftpd restart
5. User Authenticated FTP Configuration
By default vsftpd is configured to authenticate system users and allow them to download files. If you want users to be able to upload files, edit /etc/vsftpd.conf
   $write_enable=YES
6. Now restart vsftpd:
   $ sudo service vsftpd restart
7. Securing FTP
There are options in /etc/vsftpd.conf to help make vsftpd more secure.
   $chroot_local_user=YES
   $chroot_list_enable=YES
   $chroot_list_file=/etc/vsftpd.chroot_list
8. After uncommenting the above options, create a /etc/vsftpd.chroot_list containing a list of users one per line.

9. Then restart vsftpd:

$sudo service vsftpd restart

10. To configure *FTPS*, edit /etc/vsftpd.conf and at the bottom add:

$ssl_enable=YES

11. Then check the vsftpd status

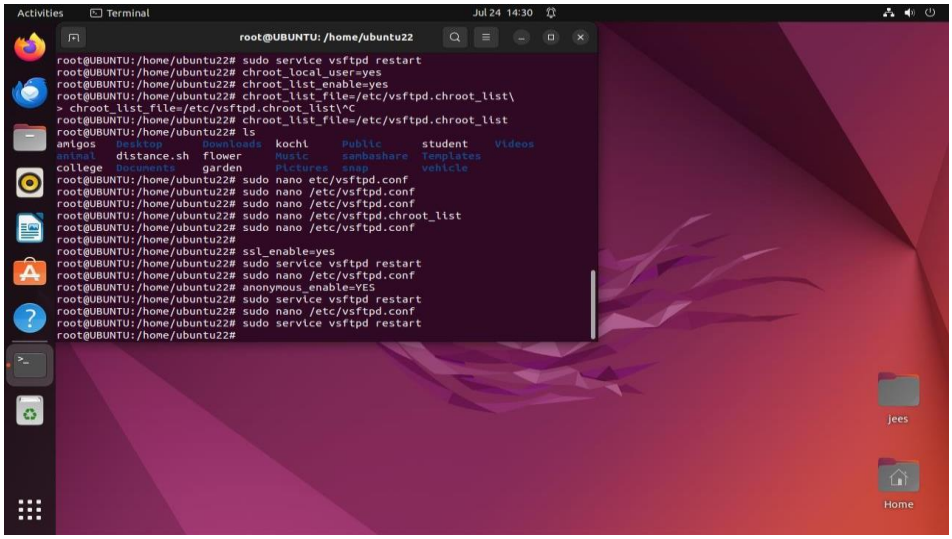
$sudo service vsftpd status

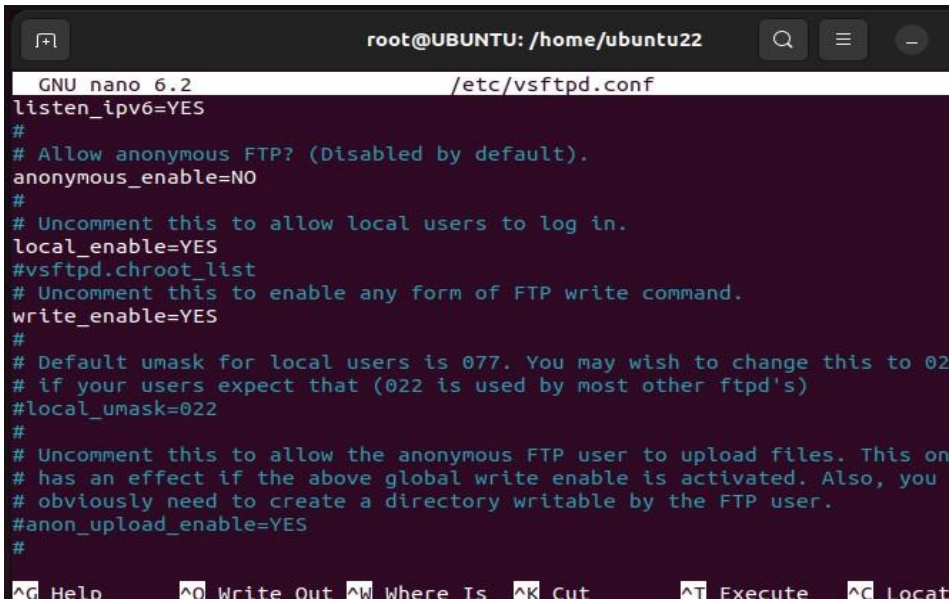
12. Now connect to ftp by the command

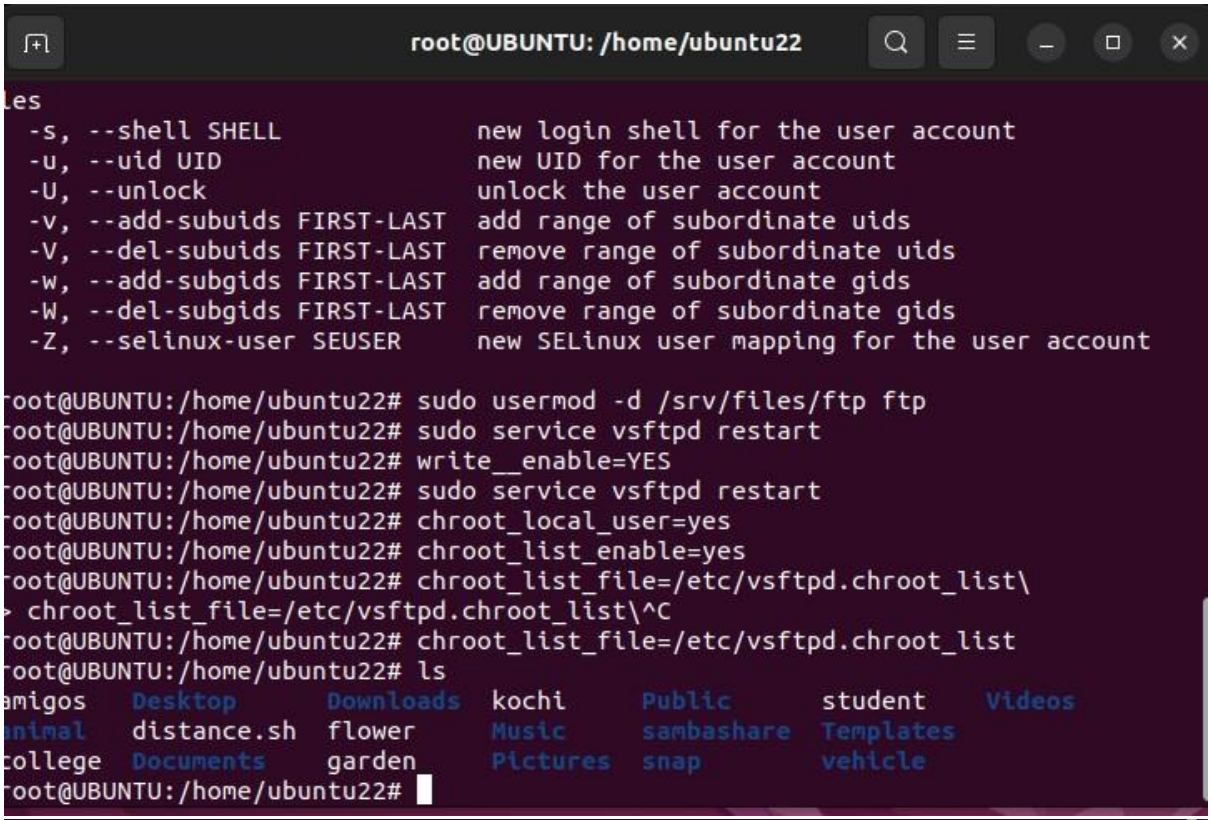
$ftp -p 192.168.234.128

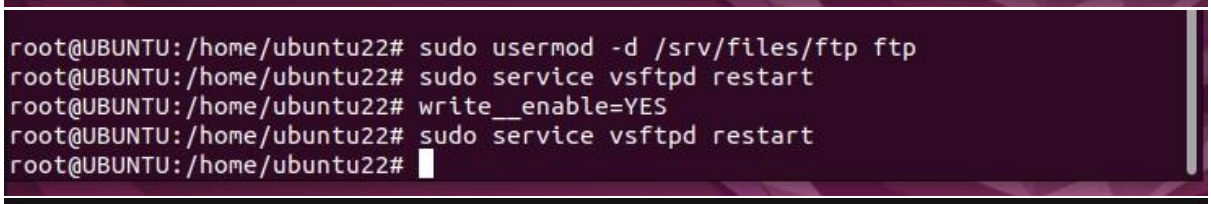
13. Now install filezilla in ubuntu and open the filezilla and specify the ip address and port number of the ftp server then click connect

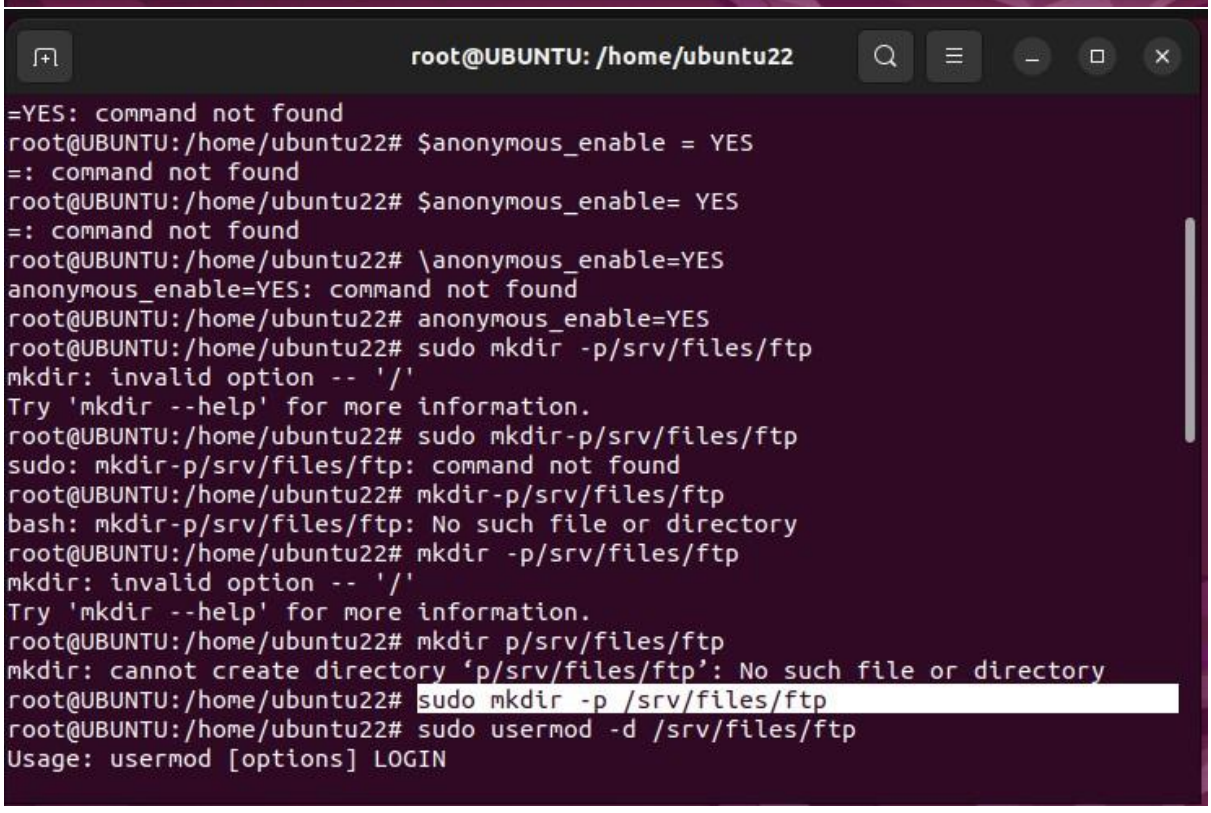
RESULT:

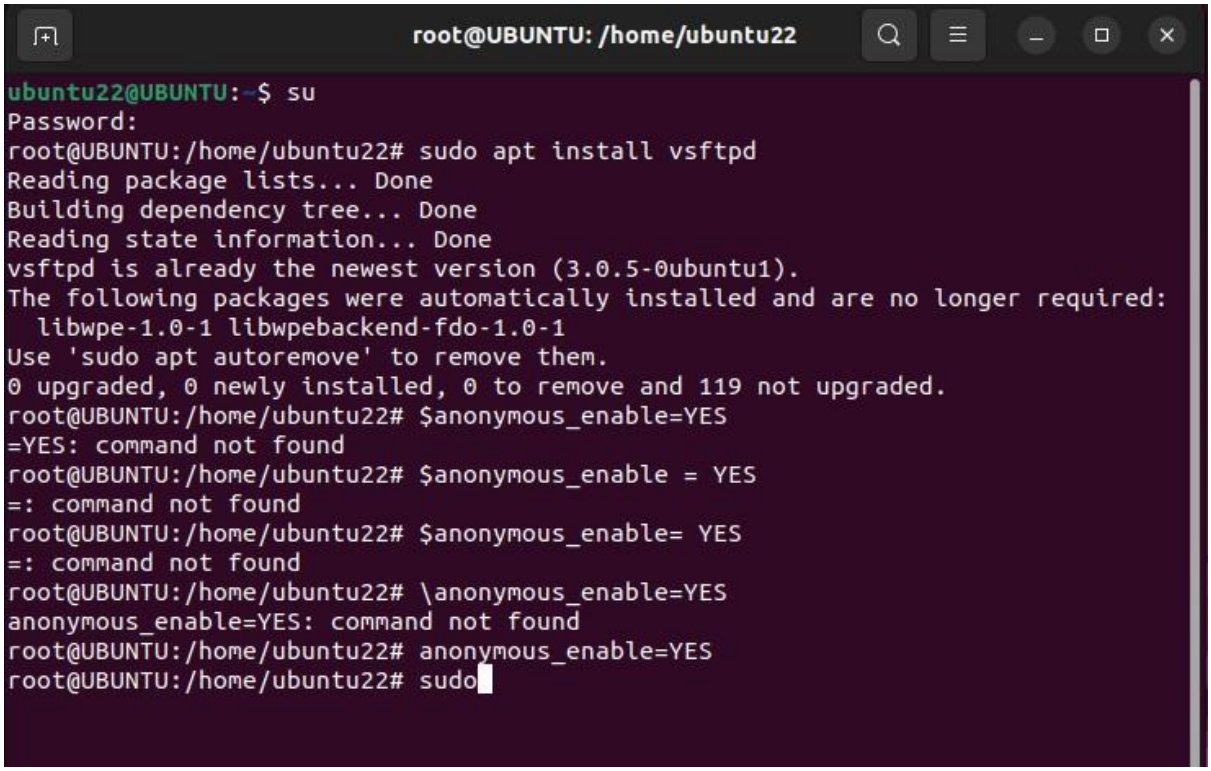


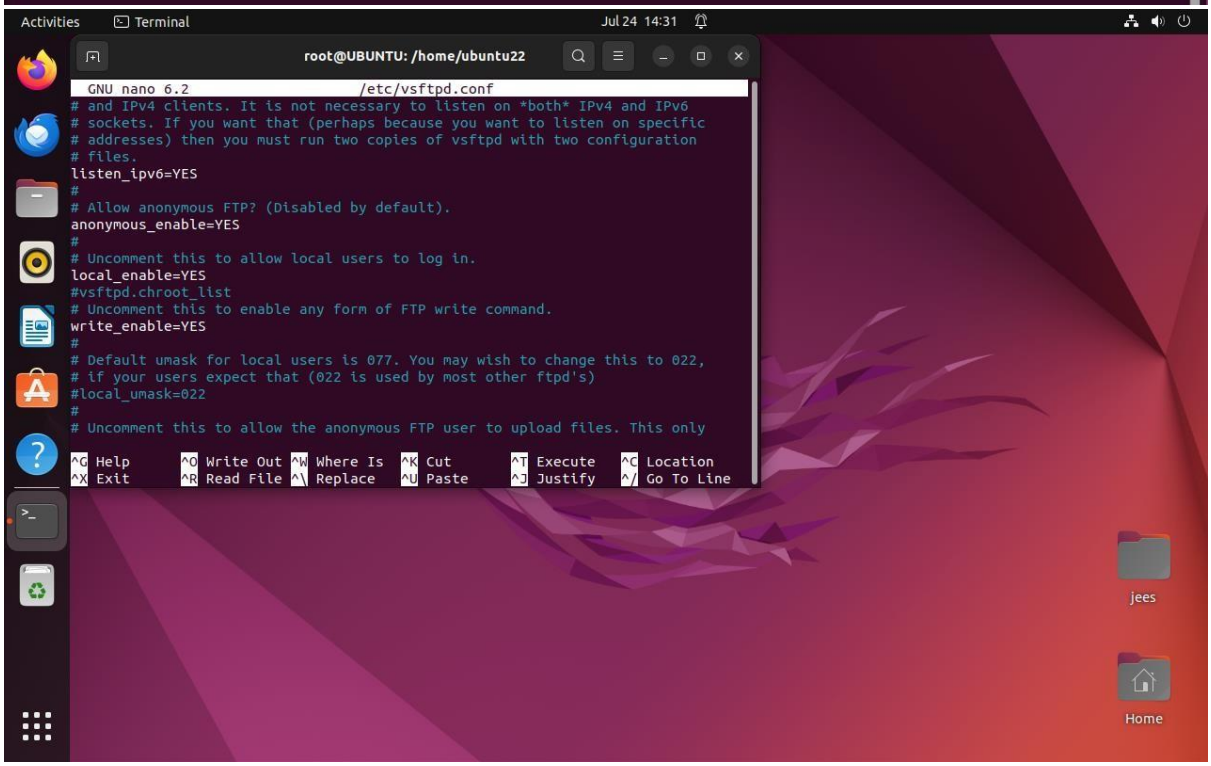


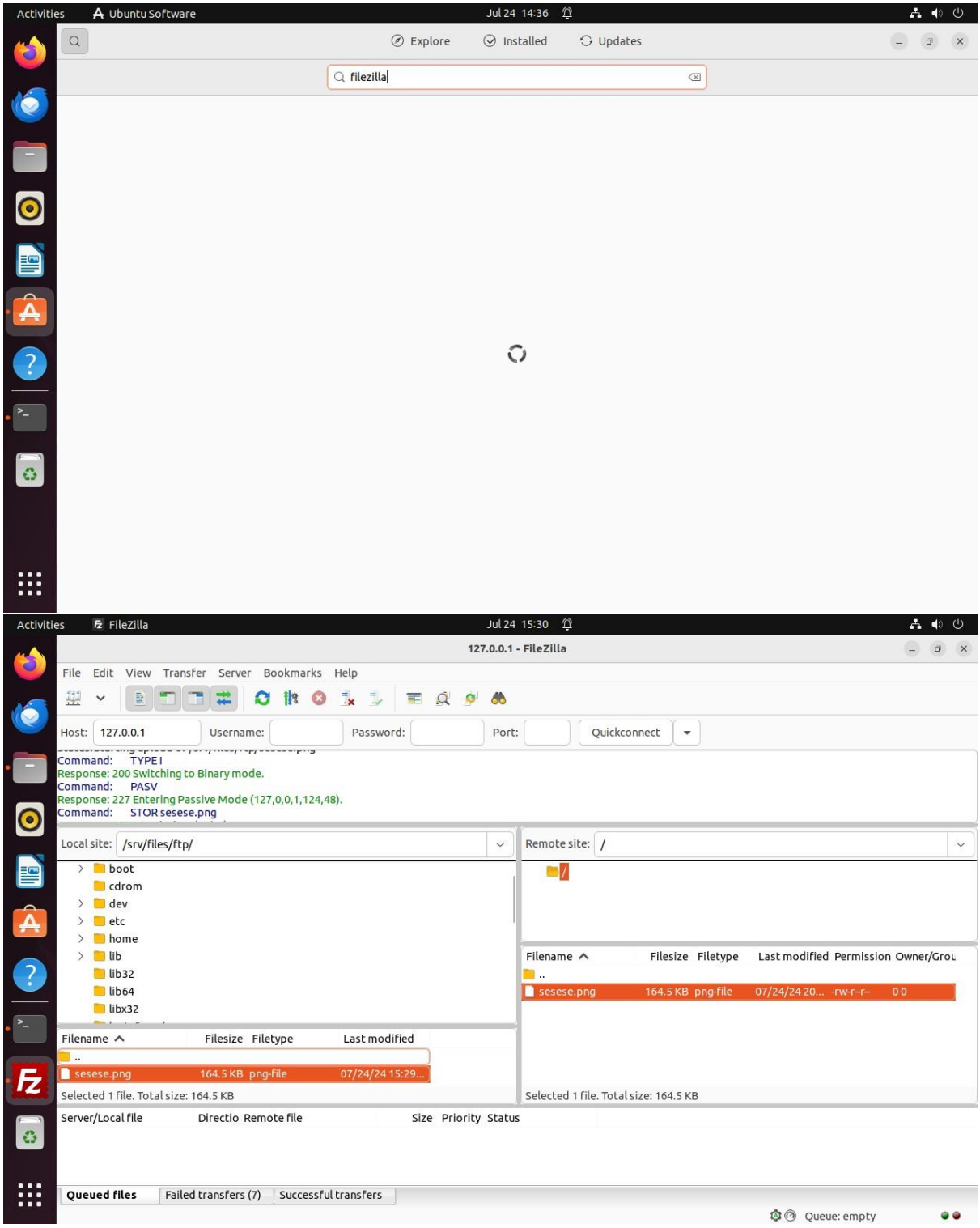

root@UBUNTU: /home/ubuntu22
les
-s, --shell SHELL new login shell for the user account
-u, --uid UID new UID for the user account
-U, --unlock unlock the user account
-v, --add-subuids FIRST-LAST add range of subordinate uids
-V, --del-subuids FIRST-LAST remove range of subordinate uids
-w, --add-subgids FIRST-LAST add range of subordinate gids
-W, --del-subgids FIRST-LAST remove range of subordinate gids
-Z, --selinux-user SEUSER new SELinux user mapping for the user account
root@UBUNTU:/home/ubuntu22# sudo usermod -d /srv/files/ftp ftp
root@UBUNTU:/home/ubuntu22# sudo service vsftpd restart
root@UBUNTU:/home/ubuntu22# write__enable=YES
root@UBUNTU:/home/ubuntu22# sudo service vsftpd restart
root@UBUNTU:/home/ubuntu22# chroot_local_user=yes
root@UBUNTU:/home/ubuntu22# chroot_list_enable=yes
root@UBUNTU:/home/ubuntu22# chroot_list_file=/etc/vsftpd.chroot_list\
> chroot_list_file=/etc/vsftpd.chroot_list\^C
root@UBUNTU:/home/ubuntu22# chroot_list_file=/etc/vsftpd.chroot_list
root@UBUNTU:/home/ubuntu22# ls
amigos Desktop Downloads kochi Public student Videos
animal distance.sh flower Music sambashare Templates
college Documents garden Pictures snap vehicle
root@UBUNTU:/home/ubuntu22#


root@UBUNTU:/home/ubuntu22# sudo usermod -d /srv/files/ftp ftp
root@UBUNTU:/home/ubuntu22# sudo service vsftpd restart
root@UBUNTU:/home/ubuntu22# write__enable=YES
root@UBUNTU:/home/ubuntu22# sudo service vsftpd restart
root@UBUNTU:/home/ubuntu22#


root@UBUNTU: /home/ubuntu22
=YES: command not found
root@UBUNTU:/home/ubuntu22# $anonymous_enable = YES
=: command not found
root@UBUNTU:/home/ubuntu22# $anonymous_enable= YES
=: command not found
root@UBUNTU:/home/ubuntu22# \anonymous_enable=YES
anonymous_enable=YES: command not found
root@UBUNTU:/home/ubuntu22# anonymous_enable=YES
root@UBUNTU:/home/ubuntu22# sudo mkdir -p/srv/files/ftp
mkdir: invalid option -- '/'
Try 'mkdir --help' for more information.
root@UBUNTU:/home/ubuntu22# sudo mkdir-p/srv/files/ftp
sudo: mkdir-p/srv/files/ftp: command not found
root@UBUNTU:/home/ubuntu22# mkdir-p/srv/files/ftp
bash: mkdir-p/srv/files/ftp: No such file or directory
root@UBUNTU:/home/ubuntu22# mkdir -p/srv/files/ftp
mkdir: invalid option -- '/'
Try 'mkdir --help' for more information.
root@UBUNTU:/home/ubuntu22# mkdir p/srv/files/ftp
mkdir: cannot create directory ‘p/srv/files/ftp’: No such file or directory
root@UBUNTU:/home/ubuntu22# sudo mkdir -p /srv/files/ftp
root@UBUNTU:/home/ubuntu22# sudo usermod -d /srv/files/ftp
Usage: usermod [options] LOGIN


root@UBUNTU: /home/ubuntu22
ubuntu22@UBUNTU:~$ su
Password:
root@UBUNTU:/home/ubuntu22# sudo apt install vsftpd
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
vsftpd is already the newest version (3.0.5-0ubuntu1).
The following packages were automatically installed and are no longer required:
libwpe-1.0-1 libwpebackend-fdo-1.0-1
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 119 not upgraded.
root@UBUNTU:/home/ubuntu22# $anonymous_enable=YES
=YES: command not found
root@UBUNTU:/home/ubuntu22# $anonymous_enable = YES
=: command not found
root@UBUNTU:/home/ubuntu22# $anonymous_enable= YES
=: command not found
root@UBUNTU:/home/ubuntu22# \anonymous_enable=YES
anonymous_enable=YES: command not found
root@UBUNTU:/home/ubuntu22# anonymous_enable=YES
root@UBUNTU:/home/ubuntu22# sudo


Activities
Terminal
Jul 24 14:31
root@UBUNTU: /home/ubuntu22
GNU nano 6.2 /etc/vsftpd.conf
# and IPv4 clients. It is not necessary to listen on *both* IPv4 and IPv6
# sockets. If you want that (perhaps because you want to listen on specific
# addresses) then you must run two copies of vsftpd with two configuration
# files.
listen_ipv6=YES
#
# Allow anonymous FTP? (Disabled by default).
anonymous_enable=YES
#
# Uncomment this to allow local users to log in.
local_enable=YES
#vsftpd.chroot_list
# Uncomment this to enable any form of FTP write command.
write_enable=YES
#
Default umask for local users is 077. You may wish to change this to 022,
if your users expect that (022 is used by most other ftpd's)
#local_umask=022
#
Uncomment this to allow the anonymous FTP user to upload files. This only
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute ^C Location
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify ^/ Go To Line
jees
Home



All the commands have been executed and the output has been obtained successfully.